Education for Sustainable Development in Bangladesh: Investigating the challenges and suggesting possible recovery strategies

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Abstract

Education for Sustainable Development (ESD) is predominantly a holistic and interdisciplinary approach relating to all pillars of sustainable development in an integrated, balanced and inclusive manner, which effectively promotes life-long learning. In a developing country like Bangladesh, Education for Sustainable Development (ESD), although not being formally carried out can be seen prevailing through various avenues. This paper focuses on how Bangladesh is going to manage its challenges-retaining economic growth, inequality, mal-governance and corruption, geo-economic imbalances and strategies, environmental and infrastructural sustainability in near future, analyzing the intensity of the existing barriers. Using qualitative method, a questionnaire was used consisting six questions to solicit 30 educational leaders and practitioners, who highlighted the barriers of ESD implementation. The results of the analysis includes versatile range of possible recovery strategies like ensuring professional development of teachers, developing gender equal strategies with special security for girls in conflict areas, equipping young students with environment-friendly education system, introducing Early Childhood Care & Education (ECCE) for children with disabilities, boosting the morale of citizens and so on.

Keywords: Education, SDG4, Bangladesh, Challenges, Strategies

Sub-theme: Education for Sustainable Development

INTRODUCTION

UNESCO (United Nations Educational, Scientific and Cultural Organization), the lead organization for the Decade, stated that ESD is a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities; a key task for education is building this capacity. If we assume that 'human beings are at the centre for concern for sustainable development' (UNCED 1992: Principle 1), then the centrality of education in contributing to sustainable development becomes clear.There have been many challenges to broadly incorporate SD standards into the formulation of government policies, business practices and individual behaviors in Bangladesh. Education for sustainable development (ESD), though not carried out formally under that designation, can be observed through various avenues of learning available in a developing country like Bangladesh. Education has long been understood as contributing to the development of human potential as well as social growth (Dewey 1899). However, Bangladesh has a number of barriers to implement ESD including information gap on children with disabilities, poverty, inequality, mal-governance, lack of skill training of teachers and climatic conditions. These obstacles to a good education faced by millions of children in Bangladesh are daunting enough. About 10% of the region's young people who are estimated to have some kind of disability, for them, the barriers are compounded. Overall it is clear that large numbers of children who struggle daily with additional hardships are not getting the chance to improve their lives through education. This means, of course, they are caught in a spiral of low expectation, low esteem and low income. This paper deals with analyzing the main challenges in achieving Sustainable Development Goal 4 in Bangladesh, suggesting versatile possible range of empirical solutions through an analysis of the views taken from researchers and educationalists from different parts of Bangladesh.

LITERATURE REVIEW

Definition and Models of Quality Education

The concept of quality recurs frequently in international educational discourse. For example, the World Educational Forum on Education for All (EFA) has addressed quality education in its EFA framework and goals. The framework consists of six goals; Goal 6 calls for: 'Improving every aspect of the quality of education, and ensuring...excellence so that recognized and

measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills' Immense is the importance of quality education which not only covers international discussions and documents but also is relevant at the national level. Providing quality education is a complex undertaking partially because the concept of quality in education is continuously evolving. In spite of definitional difficulties, UNESCO has identified basic principles underlying quality education:

"Two principles characterize most attempts to define quality in education: the first identifies learners' cognitive development as the major explicit objective of all education systems. Accordingly, the success with which systems achieve this is one indicator of their quality. The second approach emphasizes education's role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development." (UNESCO 2000)

Ideal ESD models for Sustainability

Different models have been used, implicitly or explicitly, in answering the question*: How can education play a role in promoting sustainable development (SD)?*
The dominant models in the Bangladesh Education system can be grouped into three. They are:

Model 1. Education *about* sustainable development;
Model 2. Education *for* sustainable development;
Model 3. Critical education *towards* sustainable development

Model 1: Education *about* Sustainable Development
Researchers like Shohel and Howes (2006) have mentioned that formal primary education of Bangladesh generally represents the model of education about sustainability, with several steps coming between the educational experience and practical implementation by young people. Controlled and influenced by central state institutions, particularly through a centralized curriculum (Robinson 1999) makes it difficult for formal schools to adapt local priorities, or to experiment with alternative approaches appropriate to their social and environmental context. Suggesting a more flexible approach in model 1, Fishbein and Cappella (2006) adds that attitudinal change is *necessary but insufficient* to bring about a change in behavior. Their model shows that a person's behavior is influenced by environmental factors and by their skills and abilities, as well as their intentions – and those intentions are formed by societal norms and perceived self-efficacy rather than just by attitudes.

Model 2 and 3: Education *for* and *towards* Sustainable Development
Given that the formal education system has never addressed the needs of the whole population in Bangladesh, there has been, since the 1960s, a flourishing non-formal education sector engaging in a wide range of educational and training activities organized outside the formal school system (Shohel 2004). In this trend, innovative learning methods are aimed at the development of practical skills, including matters of health, sanitation, literacy, to be applied in real life situation along with moral education. Non-formal education is based on the pedagogy from the ideas of transformative learning and participatory democracy (Shohel 2008, Schugurensky and Myers 2003). Arguing for *ESD* (model 2) Robinson and Shallcross (1998) states,
"There is a clear commitment in education for sustainable development to changing attitudes and practices so that actions are more consistent with sustainability in whatever sense this term may be locally constructed. It is through the primacy of actions that the ultimate evaluation of the success of any educational programme for sustainability will be made"

In relation to sustainable development, non-formal education facilitates public involvement in resource management and policy formation. Education For sustainable development is about practical and contextualized learning in how to live a better life and to care for the present and future of the globe. Many commentators appear to see such a model as a close relative of Model 1; according to our data this is to overlook the power of a good (or bad) example on the way learners behave. Moreover, Freire's (1972) contributes by critically investigating the strengths and weakness about the pedagogies of sustainable Education. He suggests that holistic, integrated strategies for ESD are required which promote an awareness of issues concerned with local and global ecological crisis as well as human well-being through community action and participation.

In summary, the first model, education *about* sustainable development, provides awareness which generates changes in attitude and eventually in behavior. Then the second model, education *for* sustainable development, focuses on actions about changing attitudes and building awareness for life and hence developing a lifelong practice. The third model, which denotes critical education *towards* sustainable development, mainly emphasizes to generate knowledge through critical action, and the development of active and critical citizenship by morale development.
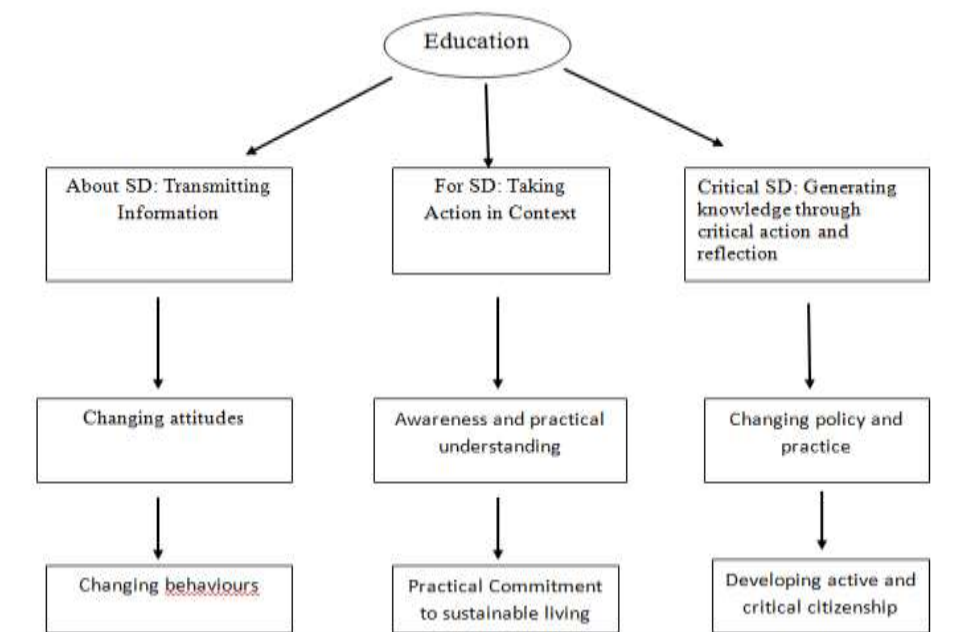
Figure: Three models for sustainable development through education

RATIONALE OF THIS STUDY

As a developing country, Bangladesh faces some particular challenges in educating its citizens for sustainable development. National learning assessments conducted by the Government of Bangladesh show low numeracy skills among students – about 45-60 percent of the students have weak reading skills, mainly because the curricula, teaching approaches, and examination systems at all levels focus more on rote learning than on competencies, critical thinking, and analytical skills. Low relevance of tertiary education and skills training is another issue of concern. The recent World Bank Enterprise Skills Survey showed that employers believe graduates of Bangladesh's higher education and training programs are inadequate for the future labor market. This country is lagging behind to properly implement Quality Education for All facing substantial obstacles in different fields. The Ministry of Primary and Mass Education requires children to master 27 cognitive competencies through primary education, but only 1.6 percent of students do. Boys achieve 16.7 of these competencies on average; girls average 15.3. The Campaign for Popular Education estimates that 66 percent of children in Bangladesh do not even achieve basic literacy and numeracy. Hence it is essential to investigate and critically analyze the causes of the prime challenges in order to find empirical solutions. This study aims to investigate the main barriers of ESD in Bangladesh along with the identification of possible recovery strategies, based on the nature and intensity of the problems.

OBJECTIVE OF THE STUDY

The main aim of this study is to identify the predominant existing barriers for implementing ESD in Bangladesh along with the intensity of those challenges in our education system. Moreover, some possible recovery approaches has been collected from the professional practitioners, which are impliable in the context of Bangladesh. These empirical solutions are in accordance with the perceived ideal models of ESD, mainly dealing with change of behaviors, awareness with practical understanding and change of policies and practices.

METHODOLOGY

Using a qualitative method, a questionnaire was used to solicit the views and opinions of 30 educationalists and practitioners from Dhaka, Chittagong, Barisal, Sylhet and Khulna Division. They identified the main obstacles prevalent in Bangladesh in introducing Sustainable education practices and also suggested possible recoveries to those problems. To collect data, participants were asked the following questions:

1. What are the main barriers to ESD in Bangladesh? Suggest some possible recovery approaches.

- Inequality
- Distinction towards Disability
- Inadequate resources
- Mal-Governance

- Insufficient and Unskilled Teachers
- Environmental Challenges

2. How can ESD be improved and enriched school curriculum development?

3. How can ESD be updated and improved in educational purposes and outcomes?

4. How can ESD guide students to have the knowledge, skills and values to care for and solve the sustainable development issues that will arise in their lifetime?

5. What can be the roles of ESD to help strengthen partnerships between schools and other stakeholders, including the surrounding community?

6. How can ESD be promoted for innovation in the teaching–learning conceptual framework?

Data for a cohort of 30 graduate and PHD holder teachers and educational practitioners were analyzed to identify possible range of solutions in case of the respective barriers. A conclusion draws on the nature of these challenges to suggest appropriate outcomes and activities for consideration by the government authority.

IDENTIFICATION OF EXISTING CHALLENGES IN IMPLEMENTING ESD

From the first Question of the questionnaire, we can identify the intensity of the main existing barriers by analyzing the data collected from the questionnaire.

Question 1: What are the main barriers of ESD in Bangladesh according to you? Select any four options below suggest some possible recovery approaches.

- Inequality
- Distinction towards Disability
- Inadequate resources
- Mal-Governance
- Insufficient and Unskilled Teachers
- Environmental Challenges

Inadequate Resource

 Inadequate resource along with poverty still remains a substantial obstacle to education in Bangladesh. Bangladesh spends only 2.2 percent of the GDP on Education. It is less than 6 percent target set by the education for all frameworks and one of the lowest percentages in the region. The existing small government manners are not enough for the education institutions. It rarely based on analysis and prioritization of needs. Resources allocation for the educational institutions is still very low and insufficient. Quality of provisions in primary education is not enough. More than half of the schools have inadequate infrastructure, textbook and learning materials.

Mal-Governance

Mal governance and corruption have become major issues in political and economic significant in a developing country like Bangladesh undermining the state institution, norms of democracy, ethical values, justice and hence jeopardizes sustainable development and rule of law. Bangladesh faces serious challenges in administration due to corruption, it ranked 145th out of 176th countries on Transparency International's 2016 Corruption Perception Index. So this corruption affects the education system of Bangladesh. It's impact ranging from marginal criteria. The financial corruption in school management decreases the quality of education. As the teachers and management are look forward to money they don't focus on education system or the quality of education in schools. There exist lack of proper monitoring, supervision and there is no accountability call for improvement.

Insufficient and Unskilled Teachers

 Inadequate resources have impact on quality and quantity of teachers. In our country the teachers of schools do not have proper training, do not understand competency based curriculum, do not focus on analytical skill and thinking. Without proper verifying unskilled teachers are recruiting in different institutions. Many steps taken to improve quality education but the teaching system is not changing yet. Additionally many faculties of different institutions do not assume their leadership roles, due to insufficient resources, training and time.

Environmental Challenges

Bangladesh is one of the most vulnerable countries that is facing immense challenges due to climatic change. It's geographical position coupled with highly dense population, limited resources and dependence to nature makes Bangladesh a hazard prone country with many subsequent catastrophic events like irregular rainfall patterns, floods, flash-floods, cyclones, saline intrusion, drought, sea-level rise, tidal-surge and water logging. Children being trapped in conflicted areas and vulnerable situations are deprived of quality education. This greatly hampered the eco-system and overall sustainable development of Bangladesh. Indigenous people are also suffering with discrimination.

Distinction towards Disability

Children with disabilities and many others who have difficulties in learning are often marginalized within the education system and within society in general. They need to be placed in separate special schools to pursue their education with special needs. However, the number of segregated special schools is far smaller than the number required for accommodating all children with disabilities. Several initiatives by Bangladesh Government, NGOs and Charity organizations have been taken to address the special education needs of children with disabilities. Moreover, still about 10% of the regions young people are estimated to have some kind of disability and the barriers are compounded. This means, they are caught in a spiral of low expectations and low esteem.

Inequality

In the Sustainable Development Goals the importance of gender statistics is particularly emphasized in ensuring ESD. Currently in Bangladesh the net enrolment gap between male and female is 14%. Moreover, Female students tend to dropout from school earlier because of child marriage, conflict and insecurity reasons. It deprives a large number of productive manpower to receive adequate amount of education for sustainable development. Transgender people receive almost no education at all. Ranking 47 in the gender gap index 2017, Bangladesh still has a long milestone to achieve in ensuring gender equality for sustainable education.
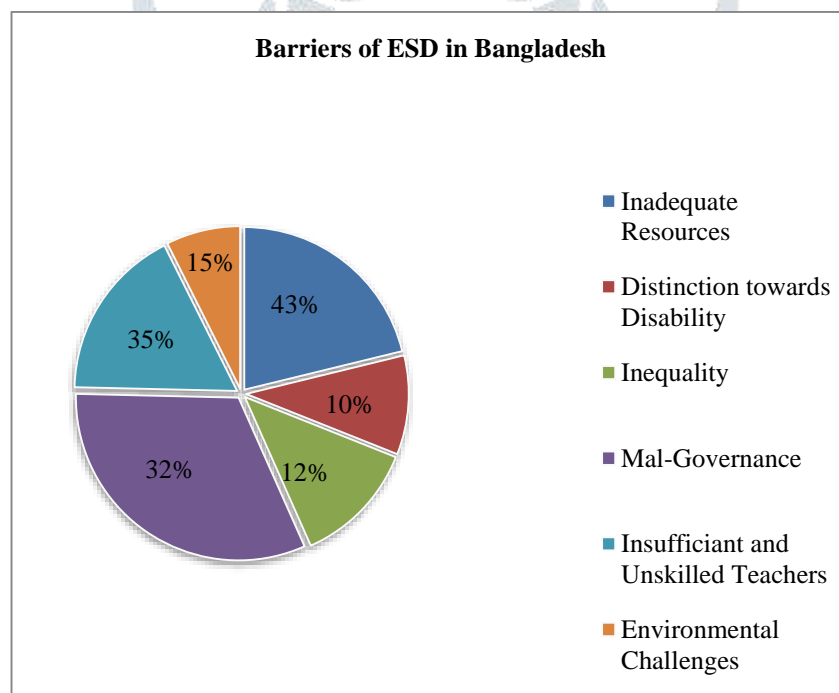

Barriers of ESD in Bangladesh

- Inadequate Resources (43%)
- Distinction towards Disability (10%)
- Inequality (12%)
- Mal-Governance (32%)
- Insufficiant and Unskilled Teachers (35%)
- Environmental Challenges (15%)

Figure: estimated percentage at which each issue acts being a barrier to implementing esd

DATA ANALYSIS

This includes analysis of the statements provided by the educationalists from different region of Bangladesh. It also includes some impliable strategies in the context of Bangladesh for ensuring sustainable education. The second analytical question is: *How Can ESD Help to Improve and Enrich School Curriculum Development?*

This question pertains to the relevance of current curricular content as well as intellectual engagement of students with the content. The focus here is mainly the outcomes other than student performance, both of which are very often the stated goals of education systems. While outcomes such as curricular relevance and student engagement are rarely formally measured, their importance is well established. Hence, they are included in this study.

As stated by practitioners from Sylhet and Dhaka, ESD perspectives foster further engagement with ESD topics in students' private lives, including lifelong learning, informal learning and social entrepreneurship. In addition, ESD can be used to promote students' moral development and helps them treat their surrounding world and cultural heritage with sensitivity, care and respect. While according to the viewpoint from Barisal, ESD approaches lead schools and school systems to a comprehensive focus in school education and management plans, as well as to a framework of competencies. Hence, they suggest policies to integrate ESD in the overall curricula and several syllabi throughout the basic education programme. Educationalists from Dhaka and Chittagong suggested adapting reform movement that can guarantee ESD to every child in school. Whereas, Khulna opines that, without adopting the existing models of Education, government must create a process to define what education for sustainability is with respect to the local context.

The third question is: *How can ESD be updated and improved in educational purposes and outcomes?*

This question pertains in modifying the traditional perceptions of quality, ensuring better outcomes in Bangladesh. Researchers provide evidence showing that ESD improves test scores and helps achieve other desired outcomes, such as improved student attendance and problem-solving skills typically associated with schooling. Some of these outcomes are academic in nature and are sometimes measured by local, provincial/state, national and international standardized tests. They suggest some ways by which ESD implementation can be improved in Bangladeshi context.

Researchers from Dhaka and Chittagong report that students of ESD schools develop stronger critical thinking skills, deeper understanding of the topics under study and better research skills. In addition, Khulna reports students are better prepared for the job market if equipped with sustainable education. Hence they suggest initiating a quality Career and Technological Education (CTE) programme and related guidance programs, essential for all students, which will help them to learn specific skills for measuring up to today's workplace. Experts from Sylhet urge the active promotion of adult education and pragmatic skills, preparing a proposal to the parliament on the establishment of a Vocational University College, introducing Technical and Vocational Education Training (TVET). They believe, an integrated and coordinated ESD approach can better solve the purpose of education.

The fourth question states: *How can ESD guide students to have the knowledge, skills and values to care for and solve the sustainable development issues that will arise in their lifetime?*

This question pertains to educating today's students for an uncertain future and to face the complexity of future challenges in the process of attaining global sustainability. ESD can provide students with opportunities to identify relevant issues and work through the process of finding appropriate solutions. It is feasible to implement strategies in context of Bangladesh that help students to observe the complex connections between local and global issues, appreciate entire systems and question and engage in focused inquiry. This is because as per expert's view, the more practice students have in facing real-world issues; the more likely they will be able to address the problems they face in the future.

According to the researchers of Chittagong, ESD contributes to developing student's abilities and confidence, moreover students learn to adapt to evolving complex situations. Hence, they suggested practicing non-formal educational approaches along with formal ones in classrooms. Dhaka reports that students, who follow ESD curricula become attentive to global issues, learn to act as responsible citizens locally and globally with respect to ESD issues, build an empathetic outlook and commitment and participate in democratic decision making. So citizenship morale needs to be boosted among the students, which is a part of imparting Sustainable Education. Education leaders from Sylhet thinks that is will inspire students to create solutions for the future to become future leaders and managers, in fostering sense of hope, appreciation and respect for humans and nature. On the other hand, Barisal reports that curriculum and textbook analyses show that ESD has led to an increased emphasis on skills and competencies rather than values.

The fifth question is: *What can be the roles of ESD to help strengthen partnerships between schools and other stakeholders, including the surrounding community?*

This question pertains to the usefulness of the school to its local community and vice versa. Students need opportunities to become meaningfully and authentically engaged with community issues. Schools focusing on ESD can help create these opportunities and foster strong collaborative ties between schools and their community. When students are offered meaningful and relevant learning opportunities, they become increasingly engaged, which often increases attendance and academic achievement. This logical sequence exemplifies the strong link between the five questions in this report.

Researchers from Dhaka, Chittagong and Barisal report that ESD helps connect schools and stakeholders within the community. When students engage in local issues, opportunities arise for them to learn more about their community. In turn, this provides a way for community members to become directly involved with the school. This is because when students engage in community issues, communities often invest better in solutions. Whereas educationalists from Khulna states "collaboration between schools will help reinforce relations between schools and parents and will help to improve principals' philosophies of school management".

The final question states: *How can ESD be promoted for innovation in the teaching–learning conceptual framework?*

This question deals with improving the process of how teachers learn to teach throughout their careers and how to engage learners in a way that helps them master the ESD curricula. Education systems strive to have students perform at very high levels regardless of the measure used to determine student performance. It is well known that the most important factor in student learning is quality teaching. Therefore, educationalists opine to establish a modified teaching-learning framework by improvising the roles of teachers to some extent, along with some other solutions. Research results presented here support this view.

As per the opinion of practitioners from Barisal and Khulna, ESD should be used to prompt innovative teaching approaches and methodologies, such as project-based learning, experiential education, and cooperative peer learning, teaching and feedback. That is, lecture based learning should be transformed into a task-based learning. While, the practitioners of Sylhet suggests the implementation of innovative teaching approaches and materials resulting in the increase of a variety of assessment methods, including the assessment of competencies and deeper knowledge. They believe it will lead to new standards for evaluating schools. Practitioners from Dhaka suggest designing of school activities collaboratively through discussion between teacher and students, which will prompt more enthusiastic and engaged teachers to be aware of their lifelong learning opportunities. A teacher should play the role of a guide. Research shows ESD is best implemented when issues are addressed in multi-disciplinary ways and across curricula. Hence, from the context of Chittagong, teachers should confirm the holistic paradigm as more efficient to reach curriculum goals and promote broad knowledge. They also emphasized on effective training of teachers. Teachers from Dhaka have also addressed the need for improved teacher training regarding values and awareness about sustainability and sustainable development.

RESEARCH FINDINGS

The research findings include the percentages of some factors acting as the main challenges in implementing ESD in Bangladesh. They are as follows:

Inadequate Resources: 43%

Distinction towards Disability: 10%

Inequality: 12%

Mal-governance: 32%

Insufficient & Unskilled teachers: 35%

Environmental Challenges: 15%

By analyzing the statements provided by the educational leaders and researchers, some empirical strategies can be adopted in various areas, in implementing Education for Sustainable Development. Some pragmatic steps which can be undertaken, referring to the three models are as follows:

1. Developing awareness within the educational community and public reorienting education can be an initial step to achieve sustainability. (Model 1)

2. Initiating skill training for teachers which will help to increase the number of qualified teachers. Providing teachers technological skills, workshops and ICT management can be done to address challenges of pupils with special education needs. (Model 2)

3. Developing an effective feedback system to support teachers and students, ensuring that the trainings have positive impact on teacher's work. In addition, qualification framework and diploma course for teachers, teacher trainers, teacher supervisors and inspectors can be introduced in order to maintain quality education. (Model 3)

4. Investments in education sector should be increased in order to ensure inclusive education and lifelong learning for all. (Model 2 & 3)

5. Reform movements can be adapted that can guarantee ESD to every child in school. (Model 2)

6. To eradicate distinction towards children with disabilities, Early Childhood Care and Education (ECCE) can be introduced for enabling early identification of disabilities and children at risk of disability which will allow early and better development of their health and education. (Model 2 & 3)

7. Some quality Career and Technological Education (CTE) programs and related guidance programs, essential for all students, can be initiated which will help them to learn specific skills for measuring up to today's workplace. (Model 2)

8. Steps can be taken to promote a multi-stakeholder approach to ensure Education Studies Document and Global Citizenship Educational Development (GCED) at all levels in form of education through human rights education and both formal and informal training. It should also include encouragement for health education up to tertiary level. (Model 1 & 2)

9. To eliminate gender inequality in receiving education, special security for girls and women to be ensured in and from their educational institutions especially during conflict and crisis. (Model 2)

10. Active promotion of adult education and pragmatic skills can be done preparing a proposal to the parliament on the establishment of a Vocational University College, introducing Technical and Vocational Education Training (TVET) in Bangladesh. (Model 3)

11. For avoiding mal-governance and corruption in implementing ESD, Global Education Monitoring (GEM) report can be processed within frequent intervals. (Model 2 & 3)

12. Enhance the major contributions and key-role of civil society in stimulating debate and public participation through collaboration initiatives. Different ways can be explored to further this involvement and commitment. (Model 1 & 2)

13. Decentralization of education system can be considered for effectively promoting Education for Sustainable Development in Bangladesh, depending on variety of existing problems in each division. Encouraging decentralization by requiring school management committees to enter into contracts with district and national officials as a condition for receiving block grants may prove to be helpful in this regard. (Model 2 & 3)

CONCLUSION

Education for All is one of the major projects of the Government of People's Republic of Bangladesh. In this country, the enrollment rate is higher than the prior decennia but the quality of education or education for sustainable development have not formally implemented. This research paper is based on ensuring the education for sustainable development in Bangladesh. The need of this research, identify the major challenges and obstacles for not educating its citizens for sustainable development. There are six necessary questions which have been asked to 30 educationalist and practitioners to identify the barriers for implementing ESD and the paper also includes the recommendation in the research findings. Some impliable pragmatic solutions have been highlighted which can help to establish ESD in Bangladesh. Predominantly, the overall research has tried to promote Education for sustainable development in Bangladesh and demonstrating the pros and cons for ESD.

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